

DRAWINGS

The diagram in paragraph 5 of the original specification has been removed and is being filed herein as a drawing sheet marked as Fig. 16. Since Fig. 16 is not being added to an existing drawing sheet, no sheet marked as an 'Annotated Sheet' has been filed, and only a page marked as a 'New Drawing Sheet' accompanies this Office Action response.

REMARKS SECTION:

1. REMARKS RELATING TO THE SPECIFICATION

The applicants have chosen to replace paragraphs as their means of making Specification amendments. The starting page and line numbers, as well as the ending page and line numbers, for each amended paragraph are identified relative to the original disclosure. Two new paragraphs have been added to the specification herein relating to the Examiner's request for a change in the positioning of the diagram originally in the BRIEF SUMMARY OF THE INVENTION – OBJECTIVES AND ADVANTAGES, which is now included as a drawing sheet and is numbered as Fig. 16. The location where the applicants desire the insertion of the new paragraphs is identified by page and line number relative to the original disclosure. One such new paragraph is to be added at the end of the BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS, while the second new paragraph is to be added at the end of the DETAILED DESCRIPTION OF THE INVENTION. A marked-up copy of each paragraph where a change has been made is a part of this Office Action response and identifies deleted and added language respectively by strike-through and underline markings.

Also, during a review of the changes made herein, the applicants noted three places where a typographical error was made relating to use of the words 'left' and 'right', where the word 'left' is now replaced by 'right' and one place where the word 'right' is replaced by the word 'left'. Also, the applicants have added a reference term '(genuflect)' to the explanation of 'right angle or knee turn' in three places for further clarification, as well as the phrase ', such as a submarine', to reiterate a comparison that had been made elsewhere in the original disclosure on page 4, line 6.

2. REMARKS RELATING TO THE CLAIMS

Claims 1-20 were originally submitted. Claims 11-15 are allowed. Also, claims 3, 4, 9, 10, 17, and 19 would be allowable if rewritten to overcome 35 USC 112 objections for indefiniteness. However, the remaining claims 1, 2, 5-8, 16, 18, and 20 are rejected under 35 USC 103. The applicants herein have provided amendments to their claims, and believe that they have done so to overcome the 35 USC 112 objections without adding new matter. They have provided proper antecedent where needed, and have also removed indefinite language. They also believe that the amendments made have provided a definition of their invention that is different from the cited prior art. A listing of the claims is enclosed with this response, with each claim marked as to its current status and amended claims showing the language added marked with underlining and deleted language having strike-through markings. Since claims 11-15 are allowed, they were not amended. Further, the applicants believe that they have amended their claims 3, 4, 9, 10, 17, and 19 so that they are no longer based on a rejected claim, and they respectfully request the Examiner to reconsider their currently amended claims and allow them.

During the amendment of their claims, instead of canceling claims 1 and 16 and importing the subject matter therein to allowable claims 9 and 19 depending respectively therefrom, as proposed by the Examiner, the applicants did the reverse and imported the original subject matter relating to debris cutters from claims 9 and 19 respectively into claims 1 and 16, so that claims 1 and 16 would instead be considered allowable. Claims 9 and 19 were then amended to include other subject matter from the specification. Since this amendment strategy preserved much of the original claim language, the applicants believed that this would be a straightforward approach and achieve the same result proposed by the Examiner. The Examiner's specific objections and rejections are noted below, with the applicant's proposed remedy also identified in the same paragraph.

Claim 13 is objected to due to the absence of a period at its end. The required

punctuation has been added. Therefore, the applicants herein respectfully request that the Examiner withdraw the objection noted in paragraph 2 of the Office Action.

Claims 1-10 and 16-20 are rejected under 35 USC 112, second paragraph, as being indefinite. The applicants have provided antecedent where it was previously missing and canceled the claim language that was determined to be indefinite. Therefore, the applicants herein respectfully request that the Examiner withdraw the objection noted in paragraph 4 of the Office Action.

Claims 1, 2, 5, 16, and 20 are rejected under 35 USC 103(a) as being unpatentable over Aschauer 061 in view of Dahle and Aschauer 526. However, the applicants believe that there are many differences between the present invention and the Dahle and Aschauer inventions. One example is that the Dahle invention requires a marine transmission. The present invention does not, and instead its mechanisms for turning and reverse are provided by the discharge of fluids in combination with its rudder system, including a reverse flow gate. Also, the present invention does not cause a resistance or reduction of thrust by positioning the rudder in the discharge flow. Further, the present invention does not use precision bearings. Instead conventional marine bearings and shaft are used. In addition, propellers used in the present invention are of a standard design. Also, the present invention water inlet is of a proven shape that allows fluids to flow freely without obstruction, screens, or bars across it that clog the opening. Further, the present invention has debris-cutting members positioned in front of its first propeller, between its propellers, and in front of its strut. In addition, the present invention is tapered across its entire length to accelerate the constant volume of fluid flow there across, so as to generate a reaction of forward thrust that is greater than that provided its four augers alone, which are constant in pitch from front to rear. The present invention also requires no grease seals and the bearings are of a widely available proven design. In addition, the present invention can be disassembled and reconditioned easily with standard parts of marine design. In contrast, the Dahle unit cannot be installed as shown, the transom would not permit it. Further, the Dahle front seal cannot be

replaced in the water as claimed, since the hole (45) is too inaccessible. Quite the converse, the present invention is of conventional design with regard to parts replacement and function. Further, the Dahle design cannot be disassembled, since both of its ends are reduced in diameter, preventing shaft removal, as well as removal of the auger attached to the shaft. The Aschauer design is unlike the present invention since the present invention does not use reduction gears, nor are they necessary. Although steering in the Aschauer is unclear, it cannot be reversed without a marine transmission. The Aschauer unit is incorrectly designated as a hydraulic jet propulsion apparatus. In reality it is a reaction jet, and not hydraulic. The present invention is truly a reaction thruster and not a jet. A jet must use a fluid to expand past its normal state and discharge this fluid at a volume of greater magnification than the static state of water. The present invention unit does not accelerate the fluid to a state of velocity to create a pressure differential that can push the vessel forward. This is equated by a boy floating on a raft with a steel ball in his left hand. He must throw this steel ball to shore. When the steel ball leaves his hand, the weight of the ball will cause the raft to react in a direction opposite of the steel ball. The raft will accept this thrust reaction and move away from the shore. This is not a jet, but merely a reaction to the energy released by the boy's arm. The present invention is a thruster and the Aschauer unit is not a jet but merely a crude thrust device of impossible construction and design. The use of reduction gears for moving water or a fluid is better accomplished by reducing the pitch of the wheels or screws as they are called in marine jargon, and increasing the diameter to move the amount of fluid desired. Aircraft use reduction gears for the discharge of the fluids to move an aircraft forward when diameter is too large. In contrast, the present invention is simple, practical, and functional. Further, claims 1 and 16 have now each been amended to contain the debris cutting subject matter originally disclosed respectively in the original claims 9 and 19, which were considered by the Examiner to be allowable if presented in an independently written form that included all limitations of the base claim and intervening claims. Therefore, instead of claims 9 and 19 being rewritten, their limitations have been

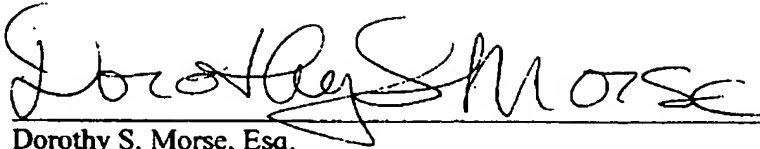
incorporated respectively into claims 1 and 16, with claims 2 and 5 depending from the newly amended claim 1, and also with claim 20 depending from the newly amended claim 16. Thus, the applicants submit that the amendments to their claims made herein define an invention that is patentably distinct from the Dahle and Anschauer inventions, and they respectfully request that the Examiner withdraw his rejection of claims 1, 2, 5, 16, and 20 in paragraph 6 of the first Office Action.

Also, claims 6-8 and 18 are rejected under 35 USC 103(a) as being unpatentable over Aschauer 061, Dahle, and Aschauer 526, and further in view of Smith that discloses a reverse and steering assembly with Ackerman geometry. The applicants incorporate their arguments above herein relating to Dahle and Aschauer, and again submit that their amended claims now define an invention that is patentably distinct from the Dahle and Aschauer inventions. Therefore, they further argue that the addition of Smith to provide a reverse and steering assembly with Ackerman geometry is insufficient in combination with the Aschauer and Dahle inventions to teach, suggest, or reveal the present invention. Therefore, the applicants respectfully request that the Examiner withdraw his rejection of claims in paragraph 7 of the first Office Action.

3. CONCLUDING REMARKS

Since the applicants herein believe that they have now provided information to the Examiner about their invention in the format required by U.S. Patent & Trademark Office, and no new matter has been added, and since they further submit that they have now defined an invention that is distinguishable from the prior art cited by the Examiner, the applicants respectfully request reconsideration and that their new and amended claims now be reviewed for patentability and allowed.

Respectfully submitted on behalf of Samuel B. Tafoya and Hans G. Broemel by:

A handwritten signature in black ink, reading "Dorothy S. Morse". The signature is written in a cursive style with a horizontal line underneath it.

Dorothy S. Morse, Esq.

515 Park Drive. N.W.

Bradenton. FL 34209-1847

(941) 747-4313 (phone)

(941) 748-4008 (fax)

U.S. Patent and Trademark Office Registration Number: 38,977